State of Illinois

Department of Transportation

Bureau of Business Services

**Specifications and Questionnaire for a Trailer Mounted, High Pressure, Sewer Cleaner**

July 2018

This specification and questionnaire covers a trailer mounted, high pressure, sewer cleaner for use in Department of Transportation highway maintenance operations.

Each bidder shall submit with their bid **two sets** of descriptive literature and specifications describing **all** the **equipment** and **options** proposed. This information shall be clearly marked to indicate the make, model, and accessories proposed to be furnished

Bidders quoting on this equipment must submit with their bid written proof of the following:

* The equipment proposed equals or exceeds that specified in all respects including capacity, operating features, and accessory items.
* The manufacturer of the equipment proposed has been actively involved in the manufacture of the equipment called for in the Questionnaire for a period of not less than 5 years.
* Parts and service for the equipment proposed are readily available to the State of Illinois.

It is the responsibility of each bidder to complete and return this questionnaire with the bid.

**Unless otherwise specified, the proposed equipment shall be complete in all parts and ready for immediate use upon delivery.**

**Bidders are advised to carefully read these specifications as changes have been made since the last solicitation issue.**

**Proposed with this bid:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Make: |  | | | | | | | |
| Model: | |  | | | | | | |
| Manufactured by: | | | | | |  | | |
| Vendor: | | |  | | | | | |
|  | | | | | |
| Contact name: | | | | |  | | |
| Telephone: | | | |  | | |
| Email: |  | | | | | |

**Type:**

*Trailer mounted, high-pressure, water jet type sewer cleaner, to include the following options and accessories:*

**Pump:**

The style or type shall be the standard as required by the manufacturer but shall meet the following requirements.

Component:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Make: | |  | | |
| Model: | | |  | |
| Describe pump: | | | |  | |
|  | | | | |

The pump shall provide a minimum flow and pressure rate of 30 Gallons per Minute @ 3,000 psi.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gallons: |  | @ |  | psi. |

The pump shall be a ceramic plunger design, of high torque, driven by a cog-style traction belt, requiring no lubrication to the drive system. There shall be no gearboxes or mechanical couplings to drive the pump.

Complies:  Yes  No

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| --- | --- | --- |
| Describe pump drive system: | |  |
|  | |

The pump housing shall include easily accessible case drains for cold weather storage.

Complies:  Yes  No

The pump shall have recirculation capability allowing water to circulate through the pump while the operator retracts the hose for refilling without shut down.

Complies:  Yes  No

The pump shall be capable of pumping fresh water, salt water, brackish water, as well as some inert chemicals without damage. The pump shall be capable of withstanding dry operation for a minimal length of time.

Complies:  Yes  No

The winterization of the water system shall be accomplished using a 15 gallon storage tank to provide anti-freeze circulation through the entire system. The system shall be plumbed to recapture the anti-freeze and reuse it after use.

Complies:  Yes  No

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| --- | --- | --- |
| Describe winterization system: | |  |
|  | |

**Engine:**

The power unit shall be a current production, fully enclosed, heavy-duty, liquid cooled, industrial, 4-cylinder, diesel engine providing a minimum 72 horsepower. It shall be turbo-charged and feature air-to-air cooled after cooling. This engine shall be compliant with all current EPA emission regulations as outlined for liquid cooled stationary “off-road” diesel engines.

Component:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Make: |  | | | | | | |
| Model: | |  | | | | | |
| Rated H.P.: | | |  | @ |  | RPM |

The engine shall be equipped with the following:

* Keyed electric start
* Direct reading hour meter
* Fuel tank clearly marked “Diesel fuel only”
* electronic governor and throttle control
* Automatic shut down for high engine temperature or low oil pressure
* Gauges and instrumentation to include tachometer, volt meter, oil pressure, and temperature
* Other standard accessories

Complies:  Yes  No

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| --- | --- | --- |
| If NO, describe: | |  |
|  | |

All the above shall be enclosed in a lockable weather-proof enclosure.

Complies:  Yes  No

The battery for the engine shall be mounted in a separate enclosure and may be located in one of the tool boxes specified under “Additional Required Accessories”.

Complies:  Yes  No

**Hose and Reel:**

The sewer cleaner hose reel shall be of safety design and capable of 170 degrees rotation without the repositioning of the machine.

Complies:  Yes  No

The operator controls for the machine shall be attached and pivot with the hose reel. They shall be contained in a N.E.M.A. 4 weatherproof enclosure. The mounting of the controls shall be easily accessible by the operator.

Complies:  Yes  No

The reel shall be constructed to hold a capacity of 600 feet of 3/4” I.D. hose. The reel shall contain 500 Feet of 3/4” I.D. cleaner hose with a working pressure of 3,000 psi and a burst pressure of 7,500 psi.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hose length/ft.: |  | | | Feet |
| Hose I.D./inch: |  | | | Inches | |
| Operating Pressure: | | |  | PSI |
| Burst Pressure: | |  | | PSI |

The hose shall be provided with a 10-foot leader hose of the same burst and working pressure.

Complies:  Yes  No

The machine shall include the following nozzles and hose attachments:

* Penetrator style nozzle
* Variable angle nozzle
* Nozzle extension
* Slipper hose
* Upstream pulley guide

Complies:  Yes  No

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| --- | --- | --- |
| If NO, describe: | |  |
|  | |

The hose reel shall be hydraulically driven forward and reverse. An upstream pulley guide shall be included.

Complies:  Yes  No

The hose reel shall be provided with a manufacturer's approved hose containment system to protect the operator.

Complies:  Yes  No

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| --- | --- | --- |
| Describe: | |  |
|  | |

An automatic level rewind feature to neatly rewind the hose to the reel shall be provided.

Complies:  Yes  No

An easily read electronic hose footage meter shall also be included. This device shall be housed in a NEMA 4 type waterproof containment and measure the hose as it is fed off the reel. The meter shall keep a minimum 99% accurate reading during operation.

Complies:  Yes  No

**Tank(s):**

The machine water tank(s) shall have a working, filled minimum capacity of 700 Gallons.

Complies:  Yes  No

|  |  |
| --- | --- |
| Capacity: |  |

***Note:*** If more than one tank is used, they shall be inter-connected in a manner that does not impede filling or discharge.

The tank(s) shall be constructed and vented to complete filling and include an anti-siphon device, and to transport water safely, using fiberglass, epoxy-lined steel, or high-density polyethylene type tanks.

|  |  |  |  |
| --- | --- | --- | --- |
| Tank Material: | | |  |
| Describe: | |  | | |
|  | | | |

***Note:*** The use of polyethylene tanks will be allowed only if their composition includes certified UV inhibitors, and they are warranted against failure for 5 years from in-service date with complete replacement.

The tank shall include an external sight gauge, replaceable screen at the fill port and a hand operated drain valve.

Complies:  Yes  No

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| --- | --- | --- |
| If NO, describe: | |  |
|  | |

**Trailer:**

The trailer shall have tandem 6,000 lb. axles with all components rated to exceed the maximum loaded weight when filled to capacity and towed at highway speed.

Complies:  Yes  No

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| --- | --- |
| Gross Axle Weight Rating: |  |

The four wheel trailer shall include an adjustable pintle type hitch, compatible to those used by IDOT on their single and tandem axle dump trucks (i.e. Premier Model 2200).

Complies:  Yes  No

The trailer shall include electric brakes at each wheel. A heavy-duty 7-prong plug wired to ATA specifications shall be used for the LED lighting, brakes, etc. All lighting and reflectors shall comply with the Illinois Vehicle Code.

Complies:  Yes  No

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| --- | --- | --- |
| If NO, describe: | |  |
|  | |

**Additional Required Accessories:**

A 25 foot tank fill hose with fittings for filling at fire hydrants shall be provided.

Complies:  Yes  No

Trigger controlled hand held jetting gun with a regulated 800 psi pressure and 25 foot of pressure rated hose with reel.

Complies:  Yes  No

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| --- | --- | --- |
| If No, describe: | |  |
|  | |

Two (2) weather-proof storage boxes with a minimum length of 60” shall be supplied and mounted one on each side of the trailer.

Complies:  Yes  No

***Note***: Fender mounting of these boxes is acceptable but under no circumstances shall they hinder the operation of the machine.

**General:**

The vendor shall furnish the machine in first class operating condition with all lubrication completed and the machine ready for operation.

Complies:  Yes  No

Two (2) copies of all operator's manuals, parts lists, electrical schematics, and warranty information shall be provided at time of delivery.

Complies:  Yes  No

***Note:*** The manuals, parts lists, and service or shop manuals listed above may be furnished on DVD in lieu of paper.

One session of instruction and training by qualified factory and dealer personnel covering operation and maintenance of the machine shall be provided at a site chosen by the receiving IDOT District.

Complies:  Yes  No

**Requirements Covering Items Detailed Above:**

All equipment cataloged as standard or safety related shall be furnished and in place and shall be included in the purchase price of the unit. Any parts, tools, and/or accessories not specifically called for but required for proper operation shall be provided.

Complies:  Yes  No

**Warranties, Coverage and Duration:**

Full coverage warranty on all components for a minimum 12 months shall be provided. Attach a copy of your warranty with the bid.

Complies:  Yes  No

|  |  |  |
| --- | --- | --- |
| Describe Warranty: | |  |
|  | |

Since the continuous operation of this equipment is of the utmost importance and generally of an emergency nature, it is necessary that the successful bidder be in a position to render prompt parts and service within the State of Illinois.

Complies:  Yes  No

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| --- | --- | --- |
| List sources for service: | |  |
|  | |
|  | |

The vendor or manufacturer of the unit considered for award shall, at the request of the State of Illinois, demonstrate this or similar equipment at a location within the receiving District in the State of Illinois and in the presence of authorized state personnel to prove out any features in question.

Complies:  Yes  No

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| --- | --- | --- |
| If No to any portion, please explain: | |  |
|  | |
|  | |

**Bid Package:**

Bidders will need to send two copies of each of the following with their bid response:

a) Specification Questionnaire

b) Descriptive Literature